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Biosynthetic Products for Cancer Chemotherapy, Volume 5

by G.R. Pettit, G.M. Cragg and C.L. Herald

Elsevier Science Publishers; Amsterdam, New York, 1985

652 pages. $159.25, Dfl. 430.00

The search among plant and animal tissues for anticancer agents has provided us with some of the drugs most widely used today for cancer treatment. Indeed, about one quarter of all drugs used in Western medicine are said to be derived from plants. Programmes of search and discovery at the National Cancer Institute have demonstrated, over the years, that some 3–4% of plants studied produce a variety of structurally unrelated anticancer agents. Extending these examinations to marine invertebrates and vertebrates, about 9–10% of marine animals furnish active neoplastic agents. The sea hare and sea mat have, apparently, yielded the most active anticancer agents (dolastatins and bryostatins) yet demonstrated.

The discovery, isolation and synthesis of new anticancer agents has greatly accelerated over the years, but the lag between discovery and eventual clinical application appears to grow ever longer and in some cases can take up to 20 years. These and many other interesting facts about new biologically derived antitumour compounds are contained in the short introduction to this topic.

The book consists almost entirely of chemical formulae and contains 21 chapters divided into 4 sections, dealing with total synthetic approaches to naturally occurring anticancer agents, new biosynthetic agents, marine animal and marine plant products. The format is a 'camera-ready' presentation with most of the structural formulae hand-drawn. This style was adopted, apparently, to speed up the publication process and substantially reduce production costs. However, the price at $159.25 is very high. Nevertheless, the book will be of great value to chemists specialising in the development of new anticancer agents.

J.M.C. Gutteridge

Techniques in Nucleic Acid Biochemistry (Techniques in the Life Sciences, Biochemistry, Volume B5)

Edited by R.A. Flavell

Elsevier Biomedical; Amsterdam, 1983

315 pages. $55.00

This publication comprises 12 chapters, each written by an expert or experts, each separately bound, and all contained in a serviceable plastic-covered box. The intention of the Editors of the series is to review periodically the basic material and when necessary to produce supplements to keep the subscriber up-to-date with recent developments. The individual chapters cover cloning in bacteriophage, cosmid libraries, gene cloning in yeast, use of cloning vectors to obtain expression of eukaryotic gene products in bacteria, transcription mapping and gene identification using hybrid selection and hybrid arrest of translation, DNA mediated gene transfer by the calcium technique,